Loanword Adaptation in Japanese Kansai Dialect*

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Abstract
This study examines the variations of loanword abbreviations (clippings) in one of the most historical dialects in Japan: Kansai dialect. Much like native Japanese words, regional variations can be observed in loanword abbreviations. The current experimental study reports Kansai speakers' awareness of dialectal characteristics including clipping styles and prosodic features. An experiment was conducted with 64 university students from Osaka. A production test was utilized; participants shortened 20 English words that had not yet been adopted in Japanese. The Kansai speakers tended to clip English loanwords that were shorter than seven morae into three morae. Four-mora clippings were also observed, although the patterns were inconsistent. Despite the participants' Kansai accentuation patterns, no consistent accentual patterns were detected in both clipping types. This study's results show how Kansai dialect might currently undergo standardization in a rapidly changing vocabulary of modern loanwords.

Key words
Japanese loanwords, Japanese phonology, loanword abbreviation (clippings), prosodic feature

* This is a reanalyzed study based on the data discussed in Hattori (2020), which compared Tokyo and Kansai speakers. I wish to send my sincerest gratitude to my advisor, Dr. Mineharu Nakayama, for his comments and suggestions. I would also like to thank Dr. Sergio Robles-Puente for suggesting the production test.

1. Introduction

A large number of loanwords from different languages can be found in the Japanese language. Many loanwords are pronounced differently than the original words by applying Japanese phonological features, and some of the words are shortened by the speakers. The mainland of Japan is known for having two major dialects: eastern-type and western-type. The western-type dialect is spoken mainly in the Kansai area and is called "Kansai dialect," having one of the most historical backgrounds among Japanese dialects (Sugito 2000). Kansai dialect has unique dialectal and linguistic features and is also known as the most widely recognizable dialect in Japan. On the other hand, the eastern-type is called "Tokyo dialect" or "standard language." The differences between the two dialects are significant, and generally found in speakers' vocabulary, word formations, and tonal systems (Maynard 2011).

Kibe (2019) mentions that abbreviations from both Tokyo and Kansai[1] contrast not only in the number of syllables but also in the use of rising pitch. For instance, the word 'bridge' is [haʃɪ] in Japanese. Kansai speakers put a high pitch on /a/, followed by the low pitch /i/, while Tokyo speakers put a high[2] pitch accent on the last syllable. Alternatively, for Tokyo speakers [haʃɪ] with a high pitch accent on /a/ (i.e., the low pitch /i/) means 'chopsticks.' For saying 'bridge,' Tokyo speakers are likely to put a high pitch on [ʃɪ], which means 'chopsticks' for Kansai speakers. Maynard (1997) agrees with Fudano (2019) and states that words such as these are pronounced differently depending on the region. Kansai speakers tend to have a distinct rising pitch more than Tokyo speakers do. When examining these observations, it is imperative to understand how differences in the dialects can be formed and developed.

Horio (2015) suggests that not only native Japanese words but also new expressions coined by younger speakers vary from region to region. There are several loanwords that are pronounced and clipped differently among young people depending on the dialect they speak. For example, young people who live on the east side of Japan, abbreviate the loanword [makɯdonarɯdo] (McDonald's) [makkɯ]. Those who live on the west side of Japan, such as Osaka residents, call McDonald's [makɯdo], with a high pitch on [kɯ]. Having the knowledge of mora helps us to understand the truncation and the pitch accent patterns in Japanese. Since truncation styles and lexical accents differ from region to region, those patterns should be taken into account for loanword abbreviations of Japanese.

This paper reports results of an experimental study eliciting clipped loanwords in Kansai dialect. The following section provides the main features of Japanese phonology and explains Kansai's dialectal features in more detail. Section 3 describes the methodology used for the elicitation experiment conducted in Osaka. By having a production test, preferred patterns for clipping are observed. Sections 4 and 5 provide a discussion of the results and conclusions, respectively.

2. Background

2.1 Pitch accents in Japanese dialects

As mentioned before, Japanese words have high and low pitches. Lexical accent is where pitch falls from high to low. Unlike English, which is a syllable-based language, standard Japanese is

[1] Kibe (2019) confirms three major cities in Kansai area, Kyoto, Kobe, and Osaka, have a same accentual type called "Keihan accent." In this study, Osaka speakers were focused on to represent Kansai dialect.

[2] For instance, Tokyo dialect has the Initial Lowering Rule (Tsujimura 2014), making LH (low high) pitch for 'bridge'. Since 'bridge' has the lexical accent at the last mora, the following particle, if attached to [haʃɪ], has a low pitch, i.e., LHL. Lexical accents are usually marked on an antepenultimate mora in nouns (Kubozono 2006).

mora-based and does not utilize stresses as lexical accents, but pitch is a more distinctive feature. Now the phonological aspects of Kansai dialect will be addressed. It can be assumed that lexical and social histories have affected variations of loanword adaptations. According to Cutler and Otake (1999:1878), "One of the most salient characteristics of the pitch accent system is that it is dialectally variable […] pitch accent patterns constitute a major cue to a speaker's dialectal background, and listeners will be accustomed to exploiting pitch accent to gain such information about speakers." As we saw above, dialectal differences in pitch accent positions make the accent less important for word recognition. In Tokyo dialect, an accented mora has a high pitch and a low pitch for all succeeding morae (Ramsey 1979:158). Kansai dialect "has a pitch fall in the middle of the stem" (Ramsey 1979:160); for instance, LHL pitch pattern for [makúdo] is from the English word "McDonald's." Based on Kansai speakers' accent preference, [makkɯ] should not be an option because the high pitch cannot be located on the geminated sound. Kubozono (2008) also explains that Kansai dialect is likely to place a pitch accent on the penultimate mora. Tokyo dialect, on the other hand, tends to put its pitch accent on the antepenultimate mora. Those differences are exemplified in Table 1, where bold-faced letters indicate the location of lexical accent.

Table 1. Accent pitch in Kansai and Tokyo dialects (Kubozono 2008)

	Television	Hawaii
Kansai	te**re**bɪ	ha**wa**ɪ
Tokyo	**te**rebɪ	**ha**waɪ

The examples above are non-native Japanese words; they are English loanwords. Fudano (2019) explains that Kansai speakers prefer three-mora words that have LHL pitch patterns both in native and Sino Japanese3 words. He adds to his claim: In order to have foreign words sound familiar to their dialects, Kansai speakers adopt the pattern in their loanwords, as well. Sanada (2018) mentions that this accentuation pattern is similar to the pattern found in 4-mora words; (e.g., 'China' Tokyo: [tʃúɯgokɯ] Osaka: [tʃɯúgokɯ]). In the standard language, there are mainly two accentuate patterns: HL (e.g., 'China' [tʃúɯgokɯ]) and LH (e.g., 'Mitsubishi' [mitˢúbiʃi]). Kansai dialect, however, has more than these two types (Warner 1997). Although there are more accent pattern variations, Kansai speakers still prefer to add high pitch on the antepenultimate mora (Sanada 2018).

In this section, the accentual patterns of Kansai and Tokyo dialects were observed. Japanese speakers also know in what ways they clip long words into shorter words. The ways of clipping styles with an emphasis on loanwords will be discussed in the next section.

2.2 Loanword abbreviation

According to Maynard (1997:66), Japanese has amassed a large number of loanwords from multiple languages, the most words coming from English. Irwin (2011) claims that there are three types of abbreviations in Japanese: mora clipping, compound reduction, and roman alphabet acronyms. Examples of these abbreviation can be found in Table 2 (Irwin 2011:71).

[3] Sino Japanese words are those originally from Chinese.

Table 2. Clippings in Japanese

Original word	Japanese (without shortening)	Shortened version
Chocolate	[tʃokore:to]	[tʃoko]
Personal Computer	[pa:sonarɯ koNpjɯ:ta:]	[pasokoN]
Universal Studio Japan	[jɯniba:sarɯ sɯtadʒɪo dʒapaN]	[jɯ:esɯd͡ʒe:] (USJ)

Irwin also proposes three main types of clipping in Japanese: back, fore, and middle clippings as shown in Table 3. According to him, back clipping is the most prominent type in Japanese.

Table 3. Clipping types in Japanese (Irwin 2011:71)

	Original word	Shortened version
Back Clipping	[tʃokore:to] 'chocolate'	[tʃoko]
Fore Clipping	[arɯbaito] 'part time job'4	[baito]
Middle Clipping	[morɯhine] 'morphine'	[mohi]

Ito (1990:215) proposes that loanword abbreviations seem to fall into two-mora and four-mora patterns. For instance, [konekɯʃoN] 'connection' is abbreviated [kone] and [haNkatʃi:ɸɯ] 'handkerchief' is [haNkatʃi]. These abbreviations happen because Japanese follows "a bimoraic foot template" (Ito and Mester 2015:384). Ito and Mester (2015) also indicate that a foot should be composed of two morae: either a heavy syllable such as geminated sounds or two light syllables. This applies not only for abbreviations of loanwords but also for native Japanese, Sino-Japanese, and mimetics.[5] Therefore, both [koné] 'connection' and [pasokoN] 'personal computer' have a bimoraic foot and bimoraic feet, respectively. In addition to these two types of templates, Ito and Mester (2015) address another template: foot and a light syllable. For example, an English word like 'animation' becomes [ánime] in Japanese. The foot [ani] has two morae, and [me] is one mora, that is a light syllable. Likewise, 'McDonald's' becomes [mak:ɯ]. [mak:] has two morae, which is a foot, and [kɯ] is one light mora at the end. A foot should be located on the left of the word (Ito and Mester 2015). Ito (1990) also mentions that phonological or morphological rules of English do not affect shortening patterns, Japanese rules override.

This section discussed methods of clipping Japanese words. There are three types of clipping styles: back, fore, and middle clipping. Depending on the place of the heavy or light syllables, or the accents of the original words, the outcomes will be different. Although two or four-mora words are most likely preferred when the original words only consist of light syllables. Japanese phonology overpowers the original phonology for clipping.

Considering the dialectal features and the phonological processes discussed above, it is the purpose of the current study to investigate how variations among Kansai speakers would occur, with an emphasis on loanwords. Kansai speakers should know how to clip and accent new loanwords in order to make them sound familiar to their own dialect.

3. Experiment

The aim of this study is to examine variations in loanword abbreviations (clipping) in Kansai dialect and to observe prosodic features of the dialect over such abbreviated loanwords.

4 Loanwords come from multiple languages, such as German.

5 Mimetics include the descriptions of the sounds (onomatopoeia), psychonemes, and phenonemes in Japanese.

3.1 Participants

A total of 64 native Japanese speakers (ages 19-22) participated in this study. The participants were all studying at the same college in Osaka at that time of this experiment. No students were majoring in English. They were assumed to be Kansai dialect speakers.[6]

3.2 Procedure: Production test

Participants were asked to produce shortened forms of the given words. They saw a total of 20 English words that had not been adopted by Japanese yet. Their answers were all recorded. There was no time limit to complete this task. All English words on the list were full-length and written in Japanese (i.e., they were applied Japanese phonological rules). Table 4 lists examples of the test words. The participants only saw the words written out in Japanese.

Table 4. Words for the production test

Source Words	Japanese	Pronunciation
Apothecary	アポセカリー	[ɑposekari:]
Kidnap	キドナップ	[kidonap:ɯ]

4. Results

The participants shortened 20 English words with a wide variety of strategies. However, the majority of the clipped words were 3- and 4-mora words. Therefore, two issues are discussed here: 3- and 4-mora clipped words, and the accent positions.

4.1 3- and 4-mora clipped words

Many 3- and 4-mora clipped words were observed in the data (see Table 5). Therefore, these two types of clippings were the focus of this analysis. According to Fudano (2019), Kansai dialect speakers tend to prefer 3-mora words. However, in the clipped loanword data, no strong preference for 3- or 4-mora clippings was found (45.31% of 3-mora words vs 48.37% of 4-mora words). When looking at the length of the full loanwords, a clear tendency was observed. The original loanwords with applied Japanese phonological rules were divided into two types based on the length: >7-mora words and ≤ 7-mora words. Forty-nine out of 64 participants (76.6%) made 3-mora clipping over 68% of the time for the loanwords with 5 or 6 morae. Yet only 23 out of 64 participants (35.9%) made 4-mora clipping over 68% of the time for the loanwords over 6 morae (see Table 5). Therefore, the results seem to show that Kansai speakers might have used the word length to determine how to clip words. Consider word length as a factor in this trend. Seven out of 9 words with less than 7 morae evoked 3-mora clipping over 50% of the time. However, when the original words are either 7 morae or more, 8 out of 11 words evoked 4-mora clipping over 50% of the time. Note that 4-mora clipping was not a strong tendency when the full-length word was longer, as compared with 3-mora clipping when the words were shorter than 7 morae. That is, participants also produced 3-mora clippings. They did not necessarily use word length as criteria consistently. Some cases might follow the original English morpheme-boundary such as *noble(man)* and *hetero(geneous)*. Furthermore, if the initial mora of the original words contained a long vowel: dermatologist, nobleman, orthography, and zoologist,

[6] The participants' birthplaces and where they grew up were not asked. As pointed out by one of the BEAL Forum 4 reviewers, whether they are Kansai dialect speakers (from Osaka, Hyogo, and Kyoto) should have been clarified.

participants tended to prefer 4-mora clippings over 3-mora clippings. However, since only 4 out of 20 words had a long vowel on the head, the effect of word structure should be further investigated in future study.

Table 5. Preferences based on the full-length word

Original words	Japanese Words	Japanese phonological features applied	3-mora (%)	4-mora (%)
<7 morae				
Apothecary	アポセカリー	[aposɛkari:]	73.4	23.4
Eclipse	エクリプス	[ɛkɯrɪpɯsɯ]	65.6	32.8
Kidnap	キドナップ	[kɪdonap:ɯ]	90.6	6.3
Nobleman	ノーブルマン	[no:bɯrɯmaN]	6.3	90.6
Pavement	ペイブメント	[pɛɪbɯmɛNto]	62.5	26.6
Witness	ウィットネス	[wɪt:onɛsɯ]	89.1	10.9
Infection	インフェクション	[ɪNɸɛkɯʃoN]	53.1	46.9
Landlord	ランドロード	[raNdoro:do]	46.9	50.0
Yashmak	ヤシュマック	[jaʃɯmak:ɯ]	68.8	9.4
			49 out of 64 speakers (76.6%)	
<7 morae				
Heterogeneous	ヘテロジニアス	[hɛtɛrod͡ʒɪnɪasɯ]	67.2	26.2
Manipulation	マニピュレーション	[manɪpjɯre:ʃoN]	60.9	35.9
Catastrophe	カタストロフィー	[katastoroɸi:]	9.4	85.9
Fairground	フェアグラウンド	[ɸɛagɯraɯNdo]	17.2	73.4
Registration	レジストレーション	[rɛd͡ʒɪsɯtore:ʃoN]	35.9	59.4
Recommendation	リコメンデーション	[rɪkomɛNde:ʃoN]	26.6	66.2
Widespread	ワイドスプレッド	[waɪdosɯpɯrɛd:o]	28.1	65.6
Orthography	オーソグラフィー	[o:sogɯraɸi:]	37.5	46.9
Dermatologist	ダーマトロジスト	[da:matorod͡ʒɪsɯto]	32.8	51.6
Governorship	ガバナーシップ	[gabana:ʃɪp:ɯ]	23.4	73.4
Zoologist	ズーオロジスト	[zɯ:orod͡ʒɪsɯto]	10.9	85.9
			23 out of 64 speakers (35.9%)	

4.2 Accent patterns

Accent patterns on 3- and 4-mora clipped words were analyzed. In 3-mora clippings, LHL pitch patterns with the penultimate accent were observed in 19 out of 20 words as shown in Table 6. Note that the percentages in Table 6 indicate the percentage of the penultimate accent out of all 3-mora clipped words. For instance, penultimate accents were found among all 3-mora clipped ‘apothecary’ 38.3% of the time. Although the penultimate accent patterns were expected to be observed in this study, no clear, consistent tendency was detected. On the other hand, antepenultimate pitch accent patterns were detected more often as shown in Table 6. Fourteen out of 20 words had more than 50% of antepenultimate accent patterns. In 4-mora clippings, both antepenultimate and penultimate accent patterns were observed, but neither of them showed a strong preferred accent pattern (as Table 7).

Table 6. Percentage of antepenultimate and penultimate accent patterns in 3-mora clippings

	Antepenultimate (%)	Penultimate (%)
Apothecary	51.1	38.3
Catastrophe	0	0
Dermatologist	0	9.5
Eclipse	53.5	37.2
Fairground	0	27.3
Governorship	0	20.0
Heterogenous	65.1	23.3
Infection	64.7	8.8
Kidnap	74.1	20.7
Landlord	92.0	8.7
Registration	56.5	26.1
Manipulation	51.3	30.8
Nobleman	50.0	25.0
Orthography	79.2	12.5
Pavement	75.0	17.5
Recommendation	47.1	23.5
Witness	80.6	1.8
Widespread	77.8	5.6
Yashmak	97.7	25.0
Zoologist	28.6	14.3

Table 7. Percentage of antepenultimate and penultimate accent patterns in 4-mora clippings

	Antepenultimate (%)	Penultimate (%)
Apothecary	26.7	28.6
Catastrophe	10.9	1.8
Dermatologist	9.5	3.0
Eclipse	9.5	9.5
Fairground	0	0
Governorship	8.5	2.1
Heterogenous	15.4	46.2
Infection	3.3	3.3
Kidnap	25.0	0
Landlord	6.3	6.3
Registration	7.9	0
Manipulation	4.4	0
Nobleman	3.5	3.5
Orthography	3.3	3.3
Pavement	0	13.3
Recommendation	11.6	14.0
Witness	0	0
Widespread	0	0
Yashmak	16.7	16.7
Zoologist	14.3	40.0

5. Conclusion

The initial goal of this study was to observe Japanese phonological variations in Kansai area with emphasis on loanword adaptations. Based on the previous studies, Kansai speakers were assumed to prefer 3-mora clippings and put the accent mainly on the penultimate position for 3-mora clipped words, and the antepenultimate position for 4-mora clipped words. In the current experiment, 64 university students from Osaka shortened 20 English words that had not yet been adopted in Japanese. The recorded speech should have shown Kansai dialectal features, revealing speakers' awareness of dialectal variations. Both 3- and 4-mora clippings were observed: 4-mora clipping was observed in 11 out of 20 words when the lengths of the full words were ignored. On the other hand, 3-mora clipping was observed more often when the full words were shorter than 7 morae.

As for the accent patterns, both penultimate and antepenultimate accentuation patterns were observed in both 3- and 4-mora clipped words, but there were no consistent accentual patterns. Surprisingly, Kansai speakers preferred the antepenultimate accent pattern for 3-mora clipped words rather than the penultimate accent pattern. This means that the participants were likely to have accent patterns that are close to that of standard Japanese. This situation may be caused by the standardization of dialects in Japan (Sanada 2018). The use of "standard" Japanese on the Internet and multimedia might be a reason to influence young people's use and disappearance of dialectal traits. As pointed out by one of the audiences in the BEAL Forum 4, the participants might have been using a different speech style from talking with their friends. This might have affected the data in this study, causing no clear tendency. In the future, a more specific study should be conducted. Another variable worth examining would be comparing loanword abbreviation in relation to English fluency. Furthermore, since the participants only did the task one time, the results might have been different when they were asked to complete the task multiple times. Including a repetition aspect of the production test could relate to speech planning. More specific testing situations may allow us to see the most refined, transitional state of Kansai dialect.

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